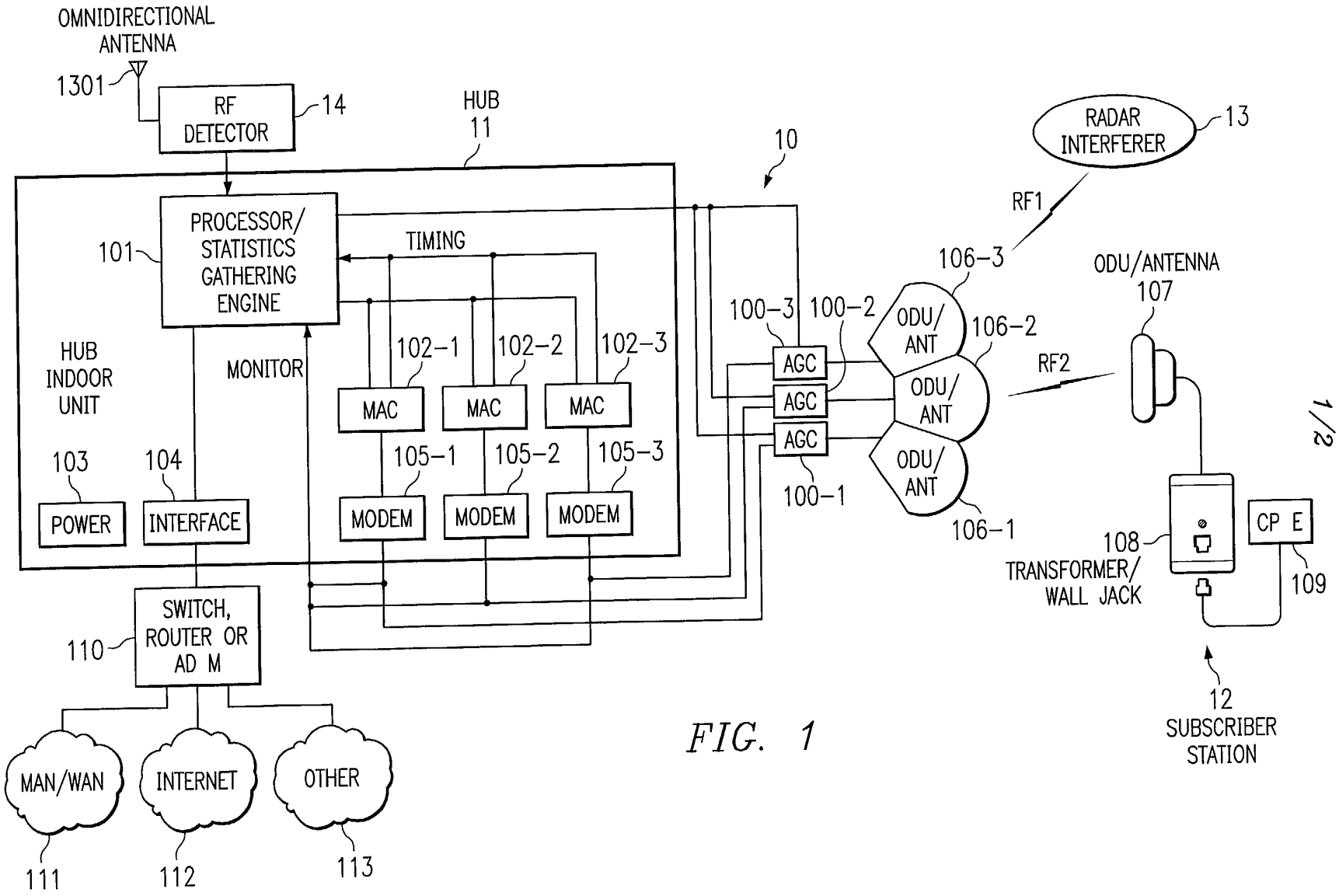

OMNIDIRECTIONAL ANTENNA
1301
RF DETECTOR
14
HUB
11
10
RADAR INTERFERER
13
RF1
PROCESSOR/ STATISTICS GATHERING ENGINE
101
TIMING
106-3
ODU/ANTENNA
107
100-3
100-2
ODU/ ANT
106-2
HUB INDOOR UNIT
MONITOR
102-1
102-2
102-3
AGC
AGC
AGC
RF2
MAC
MAC
MAC
ODU/ ANT
103
104
105-1
105-2
105-3
100-1
ODU/ ANT
POWER
INTERFACE
MODEM
MODEM
MODEM
106-1
108
CP E
TRANSFORMER/ WALL JACK
109
SWITCH, ROUTER OR AD M
110
12
SUBSCRIBER STATION
MAN/WAN
INTERNET
OTHER
111
112
113

FIG. 1

FIG. 2

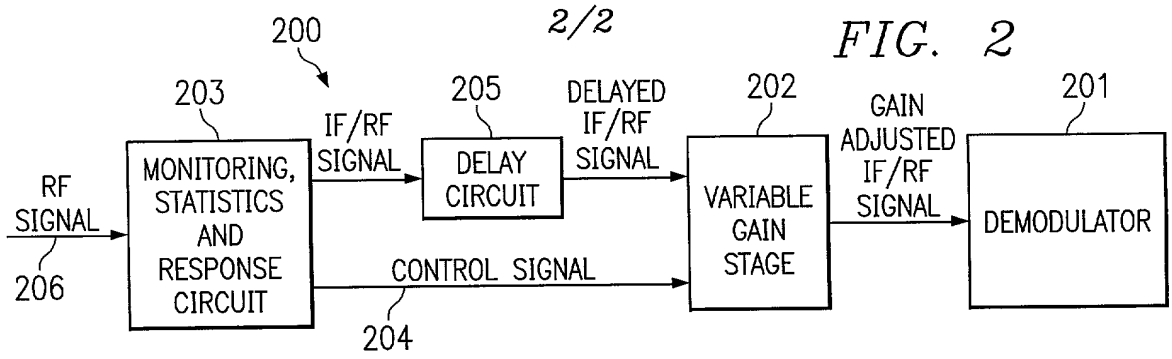
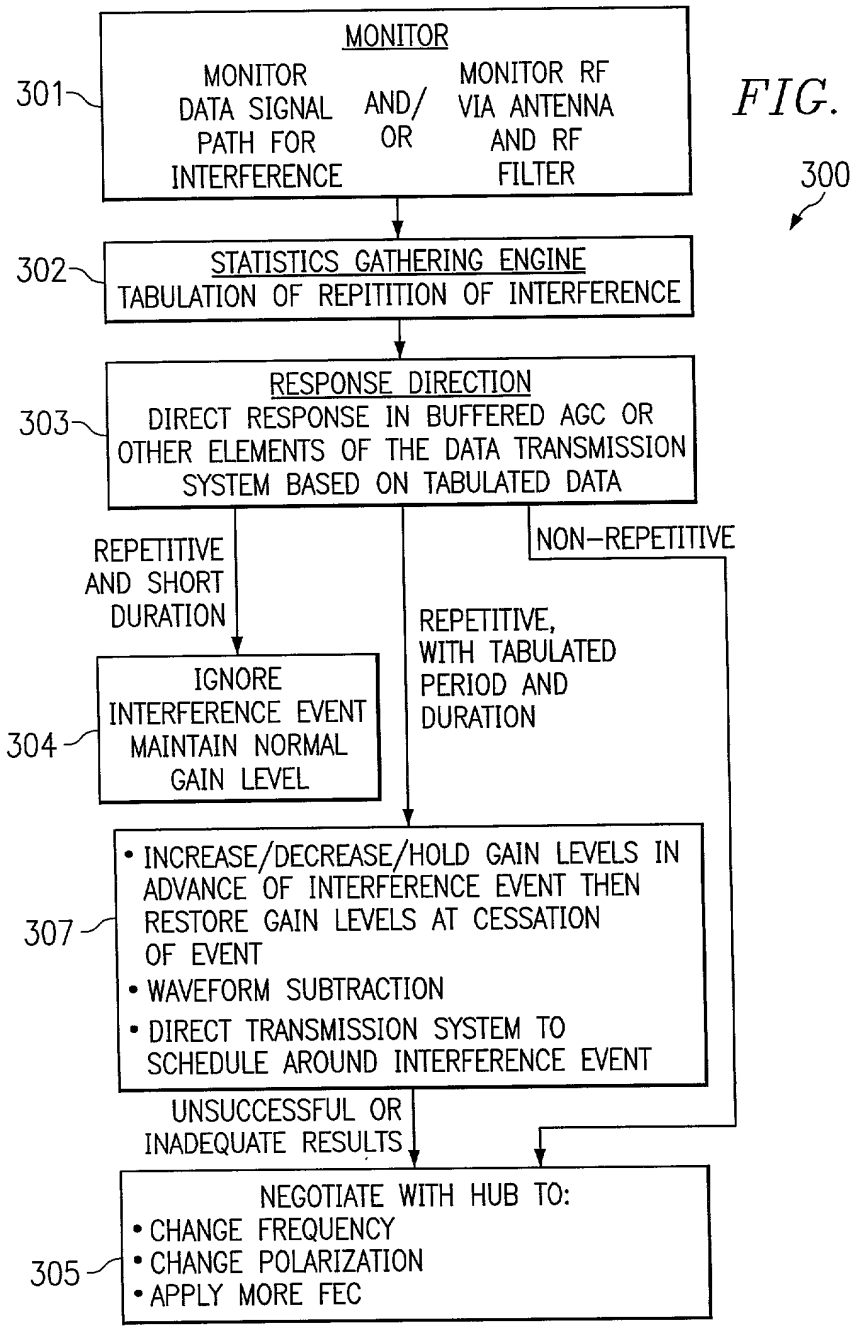

200
203
205
DELAYED IF/RF SIGNAL
202
GAIN ADJUSTED IF/RF SIGNAL
201
IF/RF SIGNAL
RF SIGNAL
MONITORING, STATISTICS AND RESPONSE CIRCUIT
DELAY CIRCUIT
VARIABLE GAIN STAGE
DEMODULATOR
206
CONTROL SIGNAL
204

FIG. 3


300
301
MONITOR
MONITOR DATA SIGNAL PATH FOR INTERFERENCE
AND/ OR
MONITOR RF VIA ANTENNA AND RF FILTER
302
STATISTICS GATHERING ENGINE
TABULATION OF REPITITION OF INTERFERENCE
303
RESPONSE DIRECTION
DIRECT RESPONSE IN BUFFERED AGC OR OTHER ELEMENTS OF THE DATA TRANSMISSION SYSTEM BASED ON TABULATED DATA
REPETITIVE AND SHORT DURATION
NON-REPETITIVE
REPETITIVE, WITH TABULATED PERIOD AND DURATION
304
IGNORE INTERFERENCE EVENT MAINTAIN NORMAL GAIN LEVEL
307
• INCREASE/DECREASE/HOLD GAIN LEVELS IN ADVANCE OF INTERFERENCE EVENT THEN RESTORE GAIN LEVELS AT CESSATION OF EVENT
• WAVEFORM SUBTRACTION
• DIRECT TRANSMISSION SYSTEM TO SCHEDULE AROUND INTERFERENCE EVENT
UNSUCCESSFUL OR INADEQUATE RESULTS
305
NEGOTIATE WITH HUB TO:
• CHANGE FREQUENCY
• CHANGE POLARIZATION
• APPLY MORE FEC